

Thorax elongate-pyriform, finely rugose, about twice as long as the greatest breadth, the anterior angles strongly rounded, narrowed from the middle, the median segment reticulate, depressed, but not truncate; pleuræ smooth. Abdomen subpetiolate; the first segment short, much narrower than the second, not constricted at the apex; second dorsal segment finely longitudinally rugose, about half as long again as the greatest breadth, strongly convex at the sides; third dorsal segment with a transverse band of greyish pubescence; pygidial area concealed by long pale pubescence. Hind tibiæ covered with short pubescence, with one or two delicate spines on the outer side near the apex.

*Hab.* Eaglehawk Neck. S.E. Tasmania; March.

Taken on a fallen log, in dense scrub. This is not very nearly allied to any other species known to me.

LVII.—*Notes on the Hymenoptera in the Collection of the British Museum, with Descriptions of new Species.* By GEOFFREY MEADE-WALDO, M.A.

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V.

IN the following paper the descriptions of several new species of Apidæ and Diploptera are published, as well as notes on known species. Most of the new material is from collections recently formed by Mr. G. E. Bryant in Sarawak and Penang and by Mr. R. E. Turner in Australia. Mr. Turner's fine collections from Australia, the whole of which are now at South Kensington, are well known to all Hymenopterists. A new species of that curious Eumenid genus *Macrocalymma* is a very interesting discovery.

Mr. Bryant, who spent some nine months in Sarawak, was primarily occupied in collecting beetles, but at my request collected such bees and wasps as he encountered in his excursions. The *Thrincostruma* and *Calioxys* were two captures of especial interest, the former as introducing a second species to a genus recorded in the Oriental Region for the first time last year, and the latter as connecting the two sexes of a species in which sexual dimorphism is very strongly developed.

## Apidæ.

## IDIOPROSOPIS, gen. nov.

*Characters*.—♂. General facies that of *Hylæus*. Head broad; as broad as mesothorax at widest, ocelli in a triangle with very wide base. A distinct malar space, mandibles medium, with two well-developed apical teeth. Joints 4–12 of antennæ produced beneath apically to an angle, giving the flagellum a serrate appearance; joint 3 very long, equalling in length joints 4 and 5. Scape simple. Tongue much as in *Hylæus*. Pronotum visible, truncate anteriorly. Propodeum subtruncate, concave medially, the anterior area not differing much in sculpture from the rest. Hind legs with trochanters dentate, the femora enormously incrassate and tibiæ spatulate. First cubital cell twice as long as second, basal nervure gently arched; stigma medium. Genital armature with the stipites simple, broadly obliquely truncate at the apex; sagittæ short, falling far short of the apices of the stipites; apical process of eighth ventral segment dilated, the apex emarginate. Six ventral segments are exposed, the sixth broadly truncate at apex.

♀. Unknown.

Type of the genus: *Idioprosopis chalcidiformis*, M.-Waldo.  
Geographical distribution of species: Patagonia.

*Idioprosopis chalcidiformis*, sp. n.

♂. Nigra; mandibulis (apice excepto), labro, clypeo areisque inter-orbitalibus pallide luteis; tibiisque posticis aurantiacis; antennis scapo cylindrico, sparsim hirsuto, flagelli articulis 4–12 serratis; capite thoraceque sparsim griseo-pilosis, punctatis; abdomine nitido; femoribus posticis incrassatis, tuberculo subapicali instructis; tibiisque posticis spatulatis, margine apicali dentato; alis subhyalinis.

Long. 9 mm.

Black; the mandibles (except the apical teeth), labrum, clypeus, and inner orbits pale ivory-yellow; posterior tibiæ orange-yellow. Mandibles only shallowly grooved; clypeus convex, at apex broader than long. Antennæ black above, pale ferruginous beneath; scape cylindrical, with a sparse covering of long griseous hairs; joints 4–12 of flagellum serrate. Head and thorax for the most part dull, the whole densely covered with shallow punctures; scutellum and portions of propodeal area shining. Abdomen shining, impunctate. Head and thorax sparsely clothed with long

griseous pubescence. Anterior and intermediate legs normal, posterior trochanters with a stout tubercle on the inner side, posterior femora enormously incrassate, shining, rounded above; beneath there is a strong carina, terminating in a conspicuous tubercle; hind tibiæ spatulate, widening from the base, a conspicuous tooth at apex. Wings subhyaline.

Length 9 mm.

1 ♂, PATAGONIA; Chubut, Valley de Lago Blanco.

[It had been intended to publish the description of this new genus and species in my fascicle on the Prosopidinae ('Gen. Insectorum'), the MS. of which is now in the hands of M. Wytsman, of Tervueren. Owing to the unsettled state of affairs in Belgium, the date of publication is very uncertain; so it seems better to add the descriptions to the present paper.]

*Thrincostruma bryanti*, sp. n.

♂. Capite thoraceque nigris, abdomine fulvo-brunneo; omnino nitidus, plus minusve pubescens; clypeo medio apiceque fulvo-brunneo; alis subhyalinis, hirsutis.

Long. (capite producto) 14 mm.

Clypeus very much produced, snout-like, the apex truncate, laterally rounded, shining and finely punctured; genæ of considerable development, about equal in length to the scape, clothed with a dense sericeous pale pubescence; inner orbits feebly emarginate along their upper half; mandibles simple, fulvous brown. Antennæ wholly black, of normal proportions. Mesonotum shining, finely punctured; scutellum shining, distinctly convex; postscutellum of ordinary sculpture; enclosed area of median segment more coarsely sculptured; surface of truncation of median segment slightly concave, subglabrous, the punctures rather scattered; lateral angles of median segment forming distinct carinæ. Tegulæ brownish, nitidulous. Abdomen (as usual in the genus) with first segment somewhat elongate, and following segments rather widening towards apex of segment 3, the whole abdomen somewhat copiously clothed with long pale brown hairs. Sternite 3 extremely short, almost entirely covered by the preceding sternite, at its apex are two short rows of stiff black hairs; sternite 4 dull, bilobed, the whole surface covered with pruinosity. Anterior and intermediate tibiæ and tarsi covered with golden pubescence; posterior tibia with a conspicuous corneous tooth at apex below; posterior tarsi with golden pubescence within. Calcaria pale testaceous. Wings with the nervures and stigma dull rufous,

second and third cubital cells subequal, shorter than the first; first and second recurrent nervures interstitial with second and third transverso-cubital nervures, second transverso-cubital nervure failing before it reaches the radial cell; the patch of black hairs characteristic of genus is situated in both cubital cells 2 and 3; basal nervure interstitial with transverso-medial.

Length 14 mm.

1 ♂.

BORNEO: Sarawak, Mt. Merinjak, 1500 ft., v. 1914 (*G. E. Bryant*).

I have much pleasure in naming this most interesting discovery after its captor, Mr. G. E. Bryant. The first and, up to the present, only known species of this genus from the Oriental Region is *T. sladeni*, Ckll. (*Canad. Ent.* 1913, p. 35), described from the Khasi Hills. It differs from the present species in size, neururation, and many structural points.

XYLOCOPA, Latr.

Yet a fourth species of handsome blue and black *Xylocopa* has been discovered in the Oriental Region, this time in Sarawak. The new species may be distinguished from its nearest allies by the following differences; all three species have the head, thorax, and first tergite more or less densely clothed with azure pubescence.

♀ ♀.

1. (2) Two complete subcubital cells, first transverso-cubital cell absent or indicated by a faint streak; at least abdominal segment 2 fringed with blue at sides.
2. (1) Three complete subcubital cells, first transverso-cubital cell strong: first abdominal sparsely clothed with blue hair, second abdominal segment black. *abbotti*, Ckll. (Siam.)
3. (4) Larger species, anterior wing 19-20 mm.; segment 2 of abdomen with blue hair at sides; wings fuscous, with purple iridescence . . . . . *cerulea*, F. (E. Indies.)
4. (3) Smaller species, anterior wing about 15 mm.; segments 2-4 of abdomen with blue hair at sides; wings distinctly paler, with hardly any purple iridescence . . . . . *ceruleiformis*, sp. n. [(Borneo.)

*X. grubaueri*, Friese (1903), from Perak, is known only by the male.

The above key will serve to differentiate the females; the male of *X. (Mesotrichia) abbotti*, Ckll., is unknown.

All these three species belong to the subgenus *Koptorthosoma*, Grib.

For further information on these species, *vide* Cockerell, Trans. Amer. Ent. Soc. p. 415 (1909).

*Xylocopa (Koptorthosoma) caeruleiformis*, sp. n.

♀. Nigra; capite, thorace, tergite primo, tergibus 2-4 lateribus caeruleo-hirtis.

Long. 17-18 mm.

♂. Nigra; capite, thorace dense brunneo-hirtis; segmento mediano rubro; abdomine nigro- vel obscure fusco-hirto; metatarso iii. curvato.

♀. At first sight closely resembling a small *X. caerulea*, F., but at once distinguished by the characters given in key.

Mandibles shining, bidentate; supraclypeal carina shining, conspicuous, not quite reaching the apex of clypeus; joint 3 of antennæ = 4 + 5 + 6; pubescence behind the eyes from pale blue to white, and on the intermediate and posterior coxæ white. Truncation of median segment with a patch of pale yellow hair on each side. Anterior tibiæ with long pale blue hairs, anterior metatarsi with long pale hair; scopa on intermediate and posterior tibiæ more or less intermixed with pale hairs. Intermediate femora slightly concave on the inner side, posterior femora with a small tubercle on the outer side. Head and abdomen evenly punctured; mesonotum shining, impunctate in the middle, laterally punctate; median segment rugose. Wings fuscous, only faintly iridescent.

♂. Head and thorax densely clothed with fulvous-brown hairs; face without pale markings; first tergite clothed with very dark brown (almost black) hair; wings fusco-hyaline, with a bronze effulgence. Eyes large, approximating above. Punctured as in the ♀. Tergite 3 with a curious differentiated area on each side at base, only visible when the segments are drawn out; the area is rounded apically, bounded by a conspicuous sulcus, the portion enclosed being very finely punctured; posterior femora somewhat incrassate, concave on inner side; metatarsus 3 slender and curved. The truncation of the median segment is distinctly rufous.

Length 16 mm.

3 ♀ ♀, 4 ♂ ♂.

BORNEO: Sarawak, Mt. Matang, 4-10. ii. 1914, 3 ♀ ♀, 3 ♂ ♂; Mt. Matang, 3000 ft., 17. i. 1914, 1 ♂ (*G. E. Bryant*).

*Xylocopa (Koptorthosoma) cærulea*, F.

4 ♀ ♀, Penang, x.-xi. 1913 (*G. E. Bryant*).

*Xylocopa collaris*, Lep.

5 ♀ ♀, BORNEO: Mt. Matang (iii. 1914), Kuching (xi. 1914). STRAITS SETTLEMENTS: Penang, x. 1914 (*G. E. Bryant*).

*Xylocopa* sp.

1 ♀, Mt. Matang, ii. 1914 (*G. E. Bryant*).

This single ♀ I am unable to identify with any certainty, but for want of more material it is better to leave it unnamed for the present.

*Anthidium apiforme*, sp. n.

♀. Flavo-ochraceum; mandibulis apice, fronte media, area circa ocellos, lineis tribus mesonoto, scutello basi, marginibus apicalibus segmentorum abdominis, subnigris; propleuris subnigris; metatarsis iii. nigris; scopa ventrali albida, subflava, apice extremo fusco; alis subhyalinis, pallide flavis; stigma inconspicua.

♂ similis, sed capite infra dense albo-piloso, antennis longioribus. Long. 14 mm.

Rather slender for an *Anthidium*. Mandibles 4-toothed, the two outer teeth the stouter; genæ wanting; clypeus about as broad as long, convex, the apex feebly serrate; antennæ short, joint 3=4+5, terminal joint forming a point in side profile; ocelli in wide-based triangle, the two posterior ones situate in a conspicuous shining area; head as broad as thorax, scutellum well overlapping postscutellum and rounded posteriorly; truncation of median segment rounded, the basal area large and of similar structure to the rest; first segment of abdomen short, distinctly hollowed out at base, the following four segments similar; the apical fasciæ vary in degree of darkness, those on tergites 1 and 2 being comparatively pale. Scopa rather sparse, the hairs long, silvery; sternite 6 with fuscous hairs. Head and thorax with a more or less dense fulvous pubescence; the abdomen with dense pubescence, similar in colour to the chitin on which it is situated. The whole insect covered with small even punctures; meta-

tarsus iii. coarsely granulose. Wings flavo-hyaline, the costal half with conspicuous pilosity.

♂. Similar, except for a conspicuous white pubescence beneath the head, the antennæ, as frequent in this sex, rather longer.

1 ♀, 1 ♂.

BORNEO: Sarawak, Mt. Matang, 12-13. xii. 1913 (*G. E. Bryant*).

This fine insect is strongly reminiscent of a hive-bee or of species of New-World *Melipona* of the *fulcipes-scutellaris* group. It is quite unlike any described species of *Anthidium* from the Oriental Region.

*Megachile malayana*, Cam., var. *auriceps*, nov.

♀. *M. malayanæ* similis, sed vertice dense aurco-hirsuto.  
Long. 18 mm.

This extremely handsome insect is evidently a variety of *M. malayana*, Cam., described in P. Z. S. 1901, p. 245, from the male sex. It may be noted that Cameron makes a rather serious *lapsus calami* in his Latin diagnosis, where he says "capite thoraceque dense nigro-pilosis." This is rectified in his English description.

A characteristic feature of *M. malayana* is, of course, the conspicuous *white* pubescence on the head. In the new variety diagnosed above this white pubescence is replaced by golden.

There is a ♀ of the typical form in the British Museum from the Mimika River, vii. 1910 (*A. F. R. Wollaston*), vide Ann. & Mag. Nat. Hist. (8) ix. p. 454 (1912). The new variety has the following data attached:—

DUTCH NEW GUINEA: Snow Mts., 4000-6000 ft., i.-ii. 1913 (*A. F. R. Wollaston*).

*Megachile (Eumegachile) atriformis*, sp. n.

♀. Nigra; alis flavo-hyalinis, margine apicali infuscata; clypeo brevissimo, apice vix punctato, carina longitudinali mediana instructo, labro apice obtuso, impunctato, aureo-sericeo; mesonoto sulcis longitudinalibus instructis, percrasse rugosissimeque punctato.

Long. 20 mm.

Strongly resembling *M. atrata*, F. Smith, in superficial characters, but differing therefrom as follows:—

*M. atrata*, Smith.

*Mandibles* robust, 5-toothed.

*Clypeus* finely, evenly punctured, truncate apically; no carina.

*Labrum* with apex broadly truncate, evenly punctured, hirsute, flat.

*Mesonotum* finely evenly punctured, no parapsidal grooves.

*Scutellum* finely evenly punctured.

3 ♀ ♀.

LOWER TENASSERIM: Mergui, ii. 1889 (*Col. Bingham*), type ♀. MIDDLE TENASSERIM: Haundraw Valley, ix. 1894 (*Col. Bingham*). PENANG, 21. x. 1913 (*G. E. Bryant*).

This species was labelled "*M. atrata*, Smith, var.," by Colonel Bingham. Smith's species occurs in Tenasserim, and was represented in the Bingham collection.

*M. (E.) atratiformis*.

*Mandibles* falciform, with only 2 distinct teeth.

*Clypeus* with a few coarse shallow punctures basally, the apex sinuate, impunctate; a distinct longitudinal carina.

*Labrum* obtuse, aureo-sericeous; convex, with a blunt longitudinal carina.

*Mesonotum* coarsely transverse striate; with 4 parapsidal grooves, the inner pair shallow, indistinct, the outer pair deep, conspicuous.

*Scutellum* coarsely punctured, shining.

*Cœliovys matangæ*, sp. n.

♀. Nigra; capite thoraceque crasse punctatis, abdomine minute punctato; facie, clypeo, vertice postice, pleuris supra, macula prope tegulas, duabus maculis scutello, segmenti mediani lateribus, aureo-pilosis; tergitebus 1-5 fasciis apicalibus squamosis pallide aureis; thorace infra sternitibusque albo-pilosis; tarsis ferrugineis; alis subhyalinis.

Long. 9 mm.

♂. Nigra, albo-pilosa (facie clypeoque aureo-pilosis exceptis); segmento anali 6-spinoso; alis subfuscis.

Long. 11 mm.

♀. Vertex and thorax with coarse even punctures; abdomen shining, the punctures fine and even; tegulæ impunctate. Scutellum convex, slightly upturned towards apical margin, laterally with short blunt tubercles; a distinct transverse furrow between scutellum and mesonotum; tergites 2 and 3 with faint transverse furrows towards apex; anal segment acute, not notched at sides, basally shining, finely punctured, apically with median carina and closely puncture 1; anal sternite distally projecting beyond anal tergite. Wings subhyaline.

Length 9 mm.



♂. Similar to ♀ in sculpture, but differs in being considerably larger and in having the wings much darker. There is only golden pubescence on the face and clypeus, all remaining pubescence is griseous; the abdominal fascia is of griseous scales. Anal segment 6-spined, all the spines acute, the four apical ones the larger, the lower pair projecting beyond the others; a pair at the base shorter than the others. Tergite 5 with a small tubercle on each side at apex; tergites 2-5 with distinct lateral furrows.

Length 11 mm.

1 ♂, 1 ♀, taken *in coitu*.

BORNEO: Sarawak, Mt. Matang, 1000 ft., ii. 1914 (*G. E. Bryant*).

A most interesting pair; the difference in general appearance is most striking. From the allied species it may be separated as follows:—

1. (6) Face and clypeus at least with golden pubescence.
2. (3) Anal tergite produced beyond anal sternite; anal segment (♂) with 8 spines;  $6\frac{1}{2}$ - $7\frac{1}{2}$  mm. (Sumatra.) . . . *sumatrana*, Endl. (1906).
3. (2) Anal tergite shorter than anal sternite.
4. (5) Larger (13 mm.); wings distinctly bicolorous, hyaline at base, fuscous at apex. ♂ unknown. (Borneo.) . . . *curvispina*, Cam. (1903).
5. (4) Smaller (9 mm. ♀, 11 mm. ♂); wings unicolorous; anal segment ♂ with 6 spines. (Borneo.) . . . *matangæ*, sp. n.
6. (1) Face and clypeus at least with white or griseous pubescence.
7. (8) Anal sternite produced beyond anal tergite: "pubescence white." ♂ unknown. 11 mm. (Borneo.) . . . *eriocephala*, Cam. (1902).
8. (7) Anal tergite longer than anal sternite; pubescence grey; anal segment (♂) with 6 spines. 10 mm. (Sumatra.) *lepotaxis*, Endl. (1906).

### *Cœlioxyys froggatti*, Ckll.

This species was described from Victoria (Proc. Linn. Soc. New South Wales, xxxvi. p. 170, 1913). Turner took a ♀ at Eaglehawk Neck, S.E. Tasmania, ii.-iii. 1913. This is apparently the first record of the genus in Tasmania; it is not represented in Cockerell's list of Tasmanian bees (Proc. Linn. Soc. New South Wales, xxxvii. p. 599, 1913).

A long series of both sexes from Yallingup, S.W. Australia, xii. 1913, is composed of specimens all rather larger than the type (10 mm. ♀, 12 mm. ♂).

Diptera.

ISCHNOCELIA, Perkins.

*Ischnocælia*, Perkins, Proc. Hawaii Ent. Soc. ii. p. 32 (1908).

= *Stenolabus*, Schulthess, Deutsch. ent. Zeit. p. 189 (1910).

Dr. Perkins communicated with Dr. Schulthess concerning these genera, and agreed that they were synonymous. There does not seem to have been any record published.

Both genera have so far only been recorded from S. and E. Australia.

*Ischnocælia robusta* (M.-Waldo).

*Elimus robustus*, M.-Waldo, Ann. & Mag. Nat. Hist. (8) v. p. 40 (Jan. 1910).

= *Stenolabus vulneratus*, Schulthess, Deutsch. ent. Zeitschr. p. 191 (March 1910).

For the transference of *E. robusta* to *Ischnocælia* see Ann. & Mag. Nat. Hist. (8) xi. p. 45 (1913). I have not seen Schulthess's type; but his good description and the text-figure (*l. c.*) leave no doubt as to their synonymity.

*Ischnocælia integra* (Schulthess), var. *major*, nov.

*Stenolabus integer*, Schulthess, Deutsch. ent. Zeitschr. p. 191 (1910).  
♂ ♀.

Described from New South Wales. Turner took four specimens (3 ♂♂, 1 ♀), which differ from the typical form as follows:—

♀. Clypeus black basally; two small ovate spots laterally about the middle, and the extreme apex ferruginous red.

♂. Clypeus entirely yellow. The type has the clypeus sanguineous—possibly this may be due to cyanide.

The West Australian specimens are consistently larger than the type—13 mm. (to apex of tergite 2); wings 10 mm.

The measurement of the type is 11 mm. (to apex of tergite 2) and wings 9.5 mm.

S.W. AUSTRALIA: Yallingup, Dec. 1913–Jan. 1914 (*R. E. Turner*), "flying over sand."

*Macrocalymma alicia*, sp. n.

♀. Nigrum; clypei dimidio basali, macula parva bilobata inter-antennas, macula post oculos, pronoti margine antico, macula mesopleurali, duabus maculis scutello, abdominis segmentis 1 et 2

fasciis apicalibus, luteis; tegulis hyalinis, vix luteo-maculatis; tibiis anticis extas luteis; tarsis anticis ferrugineis; alis subhyalinis, area costali infuscata.

Long. 11 mm.

Mandibles of median thickness, 3-dentate at apex; clypeus convex, longer than broad, apically subtruncate; joints of flagellum short, subequal. Head with the vertex subquadrate seen in profile, sharply angulated behind the eyes. Thorax long, narrow; anterior margin of pronotum truncate, the sides rounded; scutellum flat.

Head and thorax closely and coarsely punctured; median segment and abdomen closely and more finely punctate. Sternite 2 with a shallow ovate depression occupying most of its surface. Wings slightly fuscous, darker along the costa and in the radial cell.

Length 11 mm. (to apex of tergite 2).

1 ♀.

S.W. AUSTRALIA: Yallingup, Dec. 1913-Jan. 1914 (Mrs. R. E. Turner).

I have much pleasure in naming this interesting insect after its captor, Mrs. R. E. Turner, who accompanied her husband on his recent long collecting-tour in Australia.

It is a typical *Macrocalymma*, and may be readily separated from the only other described species, *M. smithianum*, Perkins (1908), as follows:—

<i>M. smithianum</i> .	<i>M. aliciae</i> .
Colours: black, ferruginous, and yellow.	Colours: black and yellow, no ferruginous (except anterior tarsi).
Antennæ mostly ferruginous.	Antennæ wholly black.
Length 8-9 mm.	Length 11 mm.

*Discoelius elongatus*, Sauss. (1854).

Mr. Turner caught a pair of this fine insect at Eaglehawk Neck, S.E. Tasmania, ii.-iii. 1913. Saussure described it from "S. Australia." There is a specimen in the British Museum from Victoria (*C. French*).

*Pareumenes australensis*, M.-Waldo (1910).

*Eumenes* (*Pareumenes*?) *australensis*, M.-Waldo, Ann. & Mag. Nat. Hist. (8) v. p. 44 (1910). ♂.

Described from specimens taken near Cairns by R. E. Turner in 1902. During his recent tour he caught eight more specimens, four of them females, within a mile of the type-locality.

The ♀ resembles the ♂ in every respect, but is rather larger (13 mm. to apex of tergite 2); like the ♂ the clypeus is wholly yellow.

I can refer the species without hesitation to the genus *Paracumenes* after an examination of both sexes.

*Montezumia amalivæ* (Sauss.).

*Nortonia amalivæ*, Sauss. Stettin. ent. Zeit. p. 53 (1869). ♂.

= *Montezumia australensis*, Perkins, Proc. Hawaii Ent. Soc. ii. p. 33 (1908). ♂.

Saussure's type came from Rockhampton. Dr. Perkins tells me that he thinks these insects are synonymous; specimens of *M. australensis* were submitted to Dr. Schulthess, and Dr. Perkins is under the impression that he established their synonymy. On careful comparison I have no doubt that he was correct, though there seems to have been no published record.

POLISTES, Latr. (1802).

*Polistes*, Latreille, Hist. Nat. Crust. Ins. iii. p. 363 (1802).

= *Abispa*, Mitchell, Exped. Eastern Australia, i. p. 104 (1838).

= *Abispa*, Sauss. Et. Fam. Vesp., Suppl. p. 169 (1854).

Saussure wrongly sank his genus *Monerebia* (1852) to *Abispa* (1838). *Abispa* is clearly not a Eumenid wasp, as both description and context show. Nor can it be claimed that *Abispa* is a *nomen nudum*; Saussure's remark (*l. c.*) that the genus was erected solely as a name, *e. g.*, "Genus *Vespa*, subgenus *Abispa*," is misleading, as there follows a specific description of several lines, based entirely, it is true, on colour.

*Monerebia*, Sauss., can now be resuscitated.

In justification of this synonymy it may be of interest to quote verbatim an account from Mitchell's book concerning his experiences with "*Abispa australiana*":—"At seventeen miles we entered a plain, where grew trees of the acacia *pendula*, and traversed it in a south-west direction, thus proceeding where it was most elongated. On entering the wood beyond a sudden extreme pain in my thigh made me shout before I was aware of the cause; a large insect had fastened itself upon me, and, on looking back, I perceived Souter, 'the Doctor,' endeavouring to defend himself from several insects of the same kind. He told me that I had passed near a tree on which their nest was suspended; and it appeared that this had been sufficient to provoke the attacks of these

saucy insects, who wore the largest stings I had ever seen. The pain I felt was extreme, and the effect so permanent that when I alighted in the evening on that leg from my horse, not thinking of the circumstances, I fell to the ground, the muscles having been generally affected. The wound was marked by a blue circular spot, the size of a sixpence, for several months."

It is evident from this account that the insect must have been a *Polistes*, the hanging nest and savage attack being characteristic of these insects. *Monerebia* is a solitary wasp making mud cells, which it stores in the usual way with larvæ &c. for its progeny. Mr. Rowland Turner, who has lived for many years in North Queensland, where *Monerebia* is common, tells me that they can only be induced to sting under great provocation, and then it is not a very serious affair. Mitchell gives his description in a footnote (*l. c.*); the "*Abispa australiana*" is probably *Polistes tepidus*, Fab.

*Ischnogaster (Parischnogaster) levifoveatus*, sp. n.

♂. Niger, luteo-variegatus, *I. foveatæ* affinis, clypeo dense argenteo-piloso; clypeo (macula subquadrata excepta), pronoti margine antico et postico, maculis pleuris, scutello duabus maculis, linea postscutello, segmenti mediani apice, luteis; fascia basali tergite 3, pedibus i. et ii. plerumque tibiisque posticis intus, luteis; mandibulis antennisque infra ferrugineis; alis subhyalinis, hirsutis. Long. 12 mm.

Clypeus short, about as broad as long, the apex produced to form a small tubercle; mandibles 3-toothed, the two outer teeth widely separated; thorax as in *I. mellyi*, but scutellum and postscutellum shining, impunctate; tegulæ shining, impunctate; petiole about twice as long as thorax, very slender, the apical third feebly swollen; segment 2 with a short basal stalk, its tergite with a conspicuous differentiated area occupying the greater part of its surface; the area flattened, bordered laterally by two rounded carinæ which disappear before the apex of the segment; terminal segment strongly compressed laterally; the sternite with two sharp longitudinal ridges meeting at apex. Antennæ massive, joints 3 and 4 equal. Wings with a considerable covering of hairs, the hind wings ciliated at the end; third cubital cell short, about one-third as long as second. Whole insect nearly impunctate; the mesonotum with feeble longitudinal striation; median segment with feeble transverse striation; abdominal segments 1 and 2 shining impunctate, the following segments glabrous. Clypeus densely covered with silvery

pilosity; thorax with a sparse testaceous pile; differentiated area on tergite 2 with an indistinct row of dark fulvous pubescence parallel to the lateral carinae.

Length (to the apex of tergite 2) 12 mm.

1 ♂.

BORNEO: Sarawak, Mt. Matang, 12. xii. 1913 (*G. E. Bryant*).

Closely allied to *I. foveatus*, Buys., described from Salwatti, but differs from that species in having the foveate area on tergite 2 almost destitute of pubescence.

*Ischnogaster (Parischnogaster) foveatus*, Buys.

This species was described by Du Buysson ('Notes from the Leyden Museum,' xxix. p. 80 (1907), ♂) from Salwatti, off N.W. New Guinea. Only the male is at present known.

Five specimens caught by Bryant at Penang in November 1913 are apparently referable to this species.

*Ischnogaster (Parischnogaster) nitidipennis*, Sauss.

1 ♂.

BORNEO: Sarawak, Mt. Matang, xii. 1913 (*G. E. Bryant*). Also recorded from Singapore (*H. N. Ridley* and *R. Shelford*) and Tenasserim (*Col. Bingham*).

*Ischnogaster (Parischnogaster) nigricans*, Cam.

2 ♀ ♀, 1 ♂.

BORNEO: Sarawak, Mt. Matang, ♂, xii. 1913. STRAITS SETTLEMENTS: Penang, x. 1913, 2 ♀ ♀ (*G. E. Bryant*). Also recorded from N.W. BORNEO: Spitang.

*Ischnogaster (Parischnogaster) flavolineata*, Cam.

1 ♂.

BORNEO: Sarawak, Mt. Matang, xii. 1913 (*G. E. Bryant*).

*Ischnogaster (Parischnogaster) butteli*, Schulthess.

2 ♂ ♂.

BORNEO: Sarawak, Mt. Matang, xii. 1913 (*G. E. Bryant*). Described from Malacca. This is the first record for Borneo.

The species is distinct from *I. flavolineata*, Cam. Schulthess was in doubt concerning their synonymy. The variegated

marking of the antennæ (*Zool. Jahrb.* xxxvii. p. 257, fig.  $\alpha$ , 1914) renders this species very conspicuous.

*Ischnogaster ornatifrons*, Cam.

5 ♂♂.

BORNEO: Sarawak, Mt. Matang, xii. 1913; Mt. Merinjak, 1500 ft., v. 1914 (*G. E. Bryant*).

LVIII.—*Descriptions and Records of Bees.*—LXIV.

By T. D. A. COCKERELL, University of Colorado.

*Megachile nidulator*, Smith.

♀.—Fife Bay, New Guinea, 1899 (Froggatt coll. 217 c).

*Megachile doddiana*, var. *clarkei*, v. n.

♀.—Hair at sides of first dorsal segment of abdomen entirely black.

*Hab.* Geraldton, W. Australia, 1914 (*Clarke*; Froggatt coll. 218 c).

The specimen also carries the number 169.

*Megachile calens*, sp. n.

♀.—Length about 10.5 mm.

Ventral scopa bright red, black on last segment; anterior margin of clypeus with a small median tubercle; wings smoky hyaline, darker apically.

Like *M. diligens*, Sm., from Oahu, Hawaiian Is., but larger, hair of vertex black, mesothorax and scutellum with a considerable admixture of black hair; the bright red abdominal bands extremely thin or interrupted in middle.

♂.—Like *M. doanei*, Ckll., from Tahiti, the sixth abdominal segment strongly bidentate, with a broadly rounded excavation between the teeth; but hair at sides of upper part of face black instead of brown, scutellum with much black hair, second to fourth abdominal segments with short black hair on disc, the first segment with no red hair-band, that on second present only at sides, that on third almost obsolete in middle, fifth segment with black hair in middle, especially basally; sixth segment with longer teeth. Anterior coxæ with slender spines; anterior tarsi slightly